## ABSTRACT OF THE DISCLOSURE

A disturbance compensation signal is produced by estimating the magnitude of disturbance acting upon an actuator based on a driving signal and a voltage signal generated when driving the actuator. A control signal is produced by multiplying the disturbance compensation signal by a gain adjustment coefficient. A head position error signal is produced based on the target position of a magnetic head and the current position of the magnetic head that is detected based on servo information recorded in advance on a magnetic disk. A gain adjuster obtains the driving signal by adding together the control signal and a position control signal. The actuator is driven with the driving signal output from the gain adjuster.

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